

## CLAIMS

1. A radar for detecting a target on the basis of a peak frequency of a peak, the radar comprising:

means for transmitting a frequency modulated transmission signal and for generating a beat signal containing a component of a frequency equal to the difference between the frequency of a reflection signal from the target of the transmission signal and the frequency of the transmission signal;

means for determining a frequency spectrum of the beat signal; and

means for determining the peak frequency of a peak appearing in the frequency spectrum,

wherein means for setting a first threshold value on the basis of the intensity of background noise or the reflection signal intensity of a target having a fixed reflection sectional area, for setting a second threshold value in a fixed frequency region in the vicinity of each peak regarding a plurality of peaks exceeding the first threshold value appearing in the frequency spectrum, and for extracting a peak exceeding the second threshold value is contained.

2. A radar as claimed in claim 1, wherein the second threshold value is heightened in a fixed band of the base portion in accordance with the expansion in the direction of

the frequency axis of the peak caused by multiplication of the beat signal by a window function.

3. A radar as claimed in claim 1 or 2, wherein the second threshold value is heightened in a fixed band of the base portion in accordance with the expansion in the direction of the frequency axis of the peak caused by C/N characteristics of an oscillator for generating the transmission signal.

4. A radar as claimed in any one of claims 1 to 3, wherein the second threshold value is set so as to be gradually lowered in the upward and downward direction from the frequency of the peak as the center.

5. A radar as claimed in any one of claims 1 to 4, wherein the second threshold value is set so as to exceed the intensity of sidebands appearing together with the peak due to a modulation component superposed on the beat signal.

6. A radar as claimed in any one of claims 1 to 5, wherein means for extracting the peak is to extract a peak exceeding all of the second threshold values after the second threshold value has been set starting with a peak having a higher peak value than others regarding a plurality of peaks exceeding the first threshold value.